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# Commission on Science and Technology for Development

**Report on the sixth session
(5-9 May 2003)**

## Economic and Social Council
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*Note*

Symbols of United Nations documents are composed of capital letters combined with figures. Mention of such a symbol indicates a reference to a United Nations document.

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*Summary*

At its sixth session, the Commission on Science and Technology for Development considered five substantive items, including the examination of a report by the Secretary-General on the main substantive item for the session, "Technology development and capacity-building for competitiveness in a digital society". Other agenda items included: the implementation of and progress on decisions made at the fifth session of the Commission; country reports on information and communication technologies; the budget of the Commission; and activities of the Commission concerning the coordination of science and technology for development.

The session benefited from the participation of high-level personalities, including José Maria Figueres, Chairman of the United Nations Information and Communication Technologies (ICT) Task Force and former President of Costa Rica; Professor Montasser Ouaili, Secretary of State for Informatics and the Internet of Tunisia, Marc Furrer, Secretary of State, Swiss Federal Office of Telecommunications; and Professor Calestous Juma, Coordinator of the Millennium Development Goals Task Force on Science, Technology and Innovation.

The Commission reviewed the work of its three panels, which had addressed different aspects of the main theme. Particular praise was expressed by delegates for the forthcoming ICT development indices, developed by the United Nations Conference on Trade and Development (UNCTAD) in collaboration with the Commission, which measured indices of connectivity, access, use and policy in approximately 200 countries and territories and classified them into three categories: "getting ahead", "keeping up" and "falling behind". The study showed that while most African and East Asian countries belonged to the latter category, all Organisation for Economic Cooperation and Development (OECD) countries and a number of South-East Asian countries belonged to the former. The Commission had also analysed the digital divide in terms of inequality in the distribution of hardware equipment and Internet users across countries. Results showed that, except for mobile telephony, the digital divide is still widening. More recent technologies such as the Internet were more unevenly distributed relative to older technologies, such as fixed-line telephony. The lower levels of inequality with respect to mobile telephony suggested greater potential for technological "leapfrogging" in bridging the digital divide.

There was general consensus that while information and communication technologies (ICT) offered wide-ranging opportunities, they had also generated new challenges for countries in which technological capability, skill capacity and infrastructure were not sufficiently developed, and that technology and competitiveness could be acquired only when supported by a policy focused on national capacity-building for technology absorption and technology learning. There was also general consensus that all countries need to have a long-term national strategy for developing ICT and for extending their diffusion. To this end, the Commission was called on to develop further its benchmarking tool in ICT and to consider the possibility of carrying out a needs assessment for interested countries, in particular least developed countries, to assist them in formulating/updating national strategies and action plans for ICT.

After consideration of all the agenda items, the Commission adopted a resolution, which addressed the major issues considered at the sixth session and recommended them for adoption by the Economic and Social Council.

In the resolution, entitled "Science and Technology for Development", the Commission decided that the substantive theme and focus of the Commission's work during the intersessional period 2003-2004 would be "Promoting the application of science and technology to meet the Millennium Development Goals". In undertaking work on the theme, the Commission would focus on policies and measures which would lead to: (a) improving the policy environment for the application of science and technology to development by identifying potential risks and benefits of new and emerging technologies; (b) strengthening basic and applied research in developing countries and international scientific networking; (c) strengthening technology support institutions and science advisory mechanisms, building human capacity, identifying new technologies and applications and encouraging international collaboration to support research in neglected fields; and (d) promoting affordable universal Internet access and building strategic partnerships in the field of science and technology for development and capacity-building for competitiveness. All entities of the United Nations system working in these areas were invited to collaborate and provide input to the work of the Commission on its main theme.

The resolution also recommended that the Commission take into account the need to meaningfully and systematically integrate a gender component into all its programmes and to improve its collaboration with its Gender Advisory Board. The resolution took note of the report of the Open-ended Working Group on concrete measures to improve the role and participation of the Commission in the recommendation and policy-making process of the United Nations system on science and technology issues.

The Commission has also recommended to the Economic and Social Council the adoption of a decision setting the duration of the regular sessions of the Commission to one week.

# Contents


| *Chapter* | | *Page* |
|---|---|---|
| I. | Matters calling for action by the Economic and Social Council or brought to its attention | 5 |
| | A. Draft resolution | 5 |
| | B. Draft decisions | 8 |
| | 1. Contribution of the Commission on Science and Technology for Development to the high-level segment of the Economic and Social Council on rural development | 8 |
| | 2. Duration of future sessions of the Commission on Science and Technology for Development | 8 |
| | 3. Report of the Commission on Science and Technology for Development on its sixth session and provisional agenda and documentation for the seventh session of the Commission | 9 |
| | C. Decisions brought to the attention of the Council | 9 |
| | Decision 6/101. Synthesis report by the Secretary-General on the Commission on Science and Technology for Development panels on technology development and capacity-building in a digital society | 10 |
| | Decision 6/102. Report of the Open-ended Working Group of the Commission | 10 |
| II. | Substantive theme: Technology development and capacity-building for competitiveness in a digital society | 11 |
| III. | Comprehensive note on implementation of and progress made on decisions taken at the fifth session of the Commission | 16 |
| IV. | Presentation of country reports on information and communication technologies | 19 |
| V. | Budget of the Commission | 20 |
| VI. | Functioning of the Commission on Science and Technology for Development, including its role in coordinating science and technology for development | 21 |
| VII. | Election of the Chairperson and other officers for the seventh session of the Commission | 26 |
| VIII. | Provisional agenda and organization of work of the seventh session of the Commission | 27 |
| IX. | Other matters | 28 |
| X. | Adoption of the report of the Commission on its sixth session | 31 |
| XI. | Organization of the session | 32 |
| | A. Opening and duration of the session | 32 |
| | B. Attendance | 32 |
| | C. Election of officers | 32 |

D. Agenda and organization of work ..... 33

E. Documentation ..... 33

Annexes

I. Attendance ..... 35

II. List of documents before the Commission at its sixth session ..... 37

III. Summary of the joint Bureau meeting between the Bureau of the Commission on Science and Technology for Development and the Bureau of the Economic and Social Council ..... 38

# Chapter I

# Matters calling for action by the Economic and Social Council or brought to its attention

## A. Draft resolution

1. The Commission on Science and Technology for Development recommends to the Economic and Social Council the adoption of the following draft resolution:

### Science and technology for development*

#### I. Technology development, capacity-building for competitiveness in a digital society

*The Economic and Social Council,*

*Welcoming* the work of the Commission on Science and Technology for Development on its theme on "Technology development and capacity-building for competitiveness in a digital society", and noting the findings, which indicate, inter alia, the following:

(a) Information and communication technologies (ICT) create new opportunities to tackle the problems of poverty, poor communications, economic stagnation and environmental degradation. At the same time, they generate new challenges, especially for those countries in which technological capability, skill capacity and supporting infrastructure are not sufficiently developed;

(b) The diffusion of ICT throughout the world is extremely uneven. Many of the developing countries face significant barriers in access to and effective applications of ICT owing to limited telecommunications infrastructure, low computer literacy levels and lack of a regulatory framework;

(c) ICT will continue to play an increasingly important role in development. Most developing countries are not in a position to compete with industrialized countries at the frontier of innovation. The most effective way of raising the level of technology in developing countries is therefore through acquisition of technology from the industrialized countries. The experience of successful economies suggests that foreign direct investment has a crucial role to play in the acquisition of technology by developing countries;

(d) Mere transfer and imports of new technology through foreign direct investment and other channels do not ensure technology acquisition. In order to build capacity to acquire and master technology, it is essential that Governments build a sound human resources capital and put in place credible and more focused long-term policies and regulations that encourage the active international transfer, effective diffusion and development of technology;

(e) In order to facilitate and promote ICT use in developing countries, there is a need for an enhanced partnership between Governments, the private sector, academic institutions and non-governmental organizations;

* For the discussion, see chap. II.

*Heeding the call* of the ministerial declaration adopted at the high-level segment of the Economic and Social Council in 2000 to work cooperatively to bridge the digital divide and to foster "digital opportunity";

*Decides* to recommend the following actions for consideration by national Governments, the Commission on Science and Technology for Development and the international community:

1. Governments are encouraged to undertake the following actions:

(a) Utilize the benchmarking tools developed by the Commission to assess their progress in ICT development and to establish mechanisms involving all stakeholders for the ongoing review, evaluation and analysis of ICT strategies, programmes and projects, including strategies to facilitate the attraction of foreign direct investment in ICT;

(b) Accelerate investment in ICT human capacity-building and promote computer literacy and life-long learning;

(c) Build up physical and institutional infrastructure to facilitate ICT development and improve efficiency and transparency through e-government;

(d) Develop policy initiatives in order to facilitate the building of regional level ICT infrastructure;

(e) Develop strategies to facilitate access to and lower costs of ICT hardware and software through providing tax incentives and encouraging the use and further development of free and open source software;

(f) Apply innovative approaches with a focus on shared infrastructure, public access facilities and the use of intermediaries and other services to interact with individuals who may lack functional literacy;

(g) Establish a regulatory framework that supports infrastructure development and accelerate deployment of appropriate and cost-effective technologies;

(h) Promote sustained measures to ensure the mastery and adaptation of technology by creating and/or strengthening local research and development units, promoting foreign direct investment with high-technology content and fostering collaboration in research and development between foreign investors and domestic research institutions;

(i) Develop strategies for local content development, including the use of icon-based programmes and the integration of traditional mass media, print, television and radio, with electronic media;

2. The international community is invited to:

(a) Promote the compilation of more appropriate data on technology indicators, taking into account that that there is a lack of data for many developing countries, which typically have a large informal sector so that more accurate ICT and technology development indices could be developed;

(b) Call for more flexibility for developing countries under international regimes, such as the Agreement in Trade-Related Aspects of Intellectual Property Rights;

3. The Commission on Science and Technology for Development is invited to:

(a) Interact closely with the ICT Task Force to promote greater information-exchange and coordination of activities in the field of ICT in order to contribute to the World Summit on the Information Society and, as feasible, update its publication *Knowledge Societies: Information Technologies for Sustainable Development* in order to raise awareness on recent developments in the field of ICT;

(b) Play an active role within the United Nations system in the analysis, promotion and recommendation of applications of science and technology to meet the Millennium Development Goals;

(c) Ensure that the Science and Technology for Development Network[1] further develops and expands into an inter-agency gateway on information on science and technology activities, which also links information technology networks at the regional, subregional and interregional levels to the network;

(d) Liaise with the United Nations Conference on Trade and Development to further develop its benchmarking tool in ICT, promote its use by other relevant United Nations agencies and consider the possibility of carrying out ICT needs assessment for interested developing countries, in particular least developed countries, to help formulate/update national strategies and action plans for ICT.

## II. New substantive theme and other activities

*The Economic and Social Council,*

*Welcomes* the choice of the theme "Promoting the application of science and technology to meet the Millennium Development Goals" for the Commission's work during the intersessional period 2003-2004. In undertaking work on this theme, the Commission is invited to analyse policies and measures that would lead to:

(a) Improving the policy environment for the application of science and technology to development by identifying potential risks and benefits of new and emerging technologies;

(b) Strengthening basic and applied research in developing countries and international scientific networking;

(c) Strengthening technology support institutions and science advisory mechanisms; building human capacity; identifying new technologies and applications; and encouraging international collaboration to support research in neglected fields;

(d) Promoting affordable universal Internet access and building strategic partnerships in the field of science and technology for development and capacity-building for competitiveness.

All entities of the United Nations system working in these areas are invited to collaborate and provide input to the work of the Commission on its main theme.

[1] http://rO.unctad.org/stdev.

### III. Strengthening coordination of science and technology for development in the United Nations system

*The Economic and Social Council,*

*Noting with appreciation* the work carried out by the Gender Advisory Board of the Commission, including at the regional and national levels,

*Requests* the Commission to take into account the need to meaningfully and systematically integrate a gender component into all its programmes and to improve its collaboration with its Gender Advisory Board.

## B. Draft decisions

2. The Commission on Science and Technology for Development recommends to the Economic and Social Council the adoption of the following draft decisions:

**Draft decision I**
**Contribution of the Commission on Science and Technology for Development to the high-level segment of the Economic and Social Council on rural development***

The Economic and Social Council takes note, during its consideration at the high-level segment on rural development, of the contribution of the Commission on Science and Technology for Development on this topic, which was addressed by the Commission under the substantive theme of its fifth session in 2001 entitled "National capacity-building on biotechnology" and summarized in its report;[2] in its deliberations under the above theme, the Commission addressed the opportunities and challenges presented by new and emerging biotechnologies and underlined the need for national capacity-building in biotechnology to support efforts in rural development, including, inter alia, improving food security, agricultural productivity, health and environmental sustainability.

**Draft decision II**
**Duration of future sessions of the Commission on Science and Technology for Development****

The Economic and Social Council, recalling paragraph 7 (a) (v) of the annex to General Assembly resolution 46/235 of 13 April 1992 and Economic and Social Council resolutions 1998/46 of 31 July 1998 and 2002/37 of 26 July 2002, decides that the duration of the regular sessions of the Commission shall be one week.

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* For the discussion, see chap. IX.
** For the discussion, see chap. XI.
[2] See E/2001/31, chap. II, paras. 18-26.

**Draft decision III**
**Report of the Commission on Science and Technology for Development on its sixth session and provisional agenda and documentation for the seventh session of the Commission***

The Economic and Social Council:

(a) Takes note of the report of the Commission on Science and Technology for Development on its sixth session;

(b) Approves the provisional agenda and documentation for the seventh session of the Commission set out below.

**Provisional agenda and documentation for the seventh session of the Commission on Science and Technology for Development**

1. Adoption of the agenda and other organizational matters.
2. Substantive theme: "Promoting science and technology application to meet the Millennium Development Goals".

   **Documentation**

   Report of the Secretary-General
3. Note on implementation and progress made on decisions taken at the sixth regular session of the Commission.

   **Documentation**

   Note by the Secretariat
4. National country reports.
5. Election of the Chairperson and other officers for the eighth regular session of the Commission.
6. Provisional agenda and organization of the work of the eighth session of the Commission.
7. Adoption of the report of the Commission on its seventh session.

## C. Decisions brought to the attention of the Council

3. The following decisions adopted by the Commission on Science and Technology for Development are brought to the attention of the Economic and Social Council:

* For the discussion, see chap. X.

**Decision 6/101**
**Synthesis report by the Secretary-General on the Commission on Science and Technology for Development panels on technology development and capacity-building in a digital society**

At its 9th meeting, on 9 May 2003, the Commission on Science and Technology for Development took note of the synthesis report by the Secretary-General on its panels on technology development and capacity-building in a digital society.[3]

**Decision 6/102**
**Report of the Open-ended Working Group of the Commission**

The Commission on Science and Technology for Development takes note of the report of the Open-ended Working Group of the Commission, and decides to include the text in its final report.[4]

[3] E/CN.16/2003/2.
[4] For the text, see chap. VI.

# Chapter II

## Substantive theme: Technology development and capacity-building for competitiveness in a digital society

1. The Commission considered agenda item 2 at its 1st, 2nd, 3rd and 9th meetings, on 5, 6 and 9 May 2003. It had before it the synthesis report by the Secretary-General on the Commission's panels on technology development and capacity-building in a digital society (E/CN.16/2003/2).

2. At its 2nd and 3rd meetings, on 5 and 6 May, the Commission held a general discussion on the item.

3. At the 1st meeting, on 5 May, the Chief of the Science and Technology Section of the United Nations Conference on Trade and Development (UNCTAD) made an introductory statement.

4. At the 2nd meeting, on 5 May, statements were made by the representatives of India, Spain, the Russian Federation, Austria, the Islamic Republic of Iran, the Sudan, Morocco, the Philippines, Jamaica, Romania, Cameroon, Chile, Brazil, China, Turkey, Algeria and Ethiopia as well as by the observers for Angola, Cuba and Uganda.

5. At the 3rd meeting, on 6 May, statements were made by the representatives of India, Germany, Brazil, the Islamic Republic of Iran, Cameroon and Chile and the observers for Egypt and Croatia.

### Chairperson's summary of the general discussion

6. The importance of technology for economic and social development has long been recognized. This was especially true of information and communication technologies (ICT), which as infrastructure technologies, cut across all economic activities. ICT has a wide range of applications, providing wider access to information, powerful channels for communication and new options for improving productive processes in industry as well as in other economic and social activities. However, technological research, innovation and capabilities remained largely concentrated in a select group of countries. Many developing countries were becoming even more marginalized, held back by the lack of capacity to innovate and incorporate new technologies into their industrial sectors.

7. It was on this basis that the Commission on Science and Technology for Development selected "Technology development and capacity-building for competitiveness in a digital society" as its main substantive theme at its fifth session, with particular attention to ICT as pervasive tools of global impact with wide applications and growing potential. In addressing this theme, the Commission set up three panels made up of Commission members and other experts. The panels analysed three main topics: (a) the measurement and benchmarking of technology development; (b) the role of foreign direct investment in transferring technology and in building national ICT capabilities; and (c) policy options for ICT development in developing countries.

8. The Commission developed indices of technology development, taking into account indicators such as investment in research and development, human capital

and export performance. Another set of indices developed, the ICT development indices, with a pool of almost twice as many countries. The indices calculated by the Commission and UNCTAD estimated the level of connectivity, access and usage of ICT, as well as the policy framework.

9. The study on benchmarking analysed index rankings by region and income in order to identify trends and to classify countries as "falling behind", "keeping up" or "getting ahead". As a broad generalization, African and South Asian countries were classified as "falling behind", Latin American and transition economies as "keeping up" and Organisation for Economic Cooperation and Development (OECD) countries and South-East Asian countries as "getting ahead".

10. Using the Gini coefficient, a measure of inequality, the Commission had also analysed and measured the international digital divide in terms of inequality in the distribution of hardware equipment (Internet hosts, personal computers, fixed mainlines, mobiles) and Internet users across countries. Results showed that more recent technologies such as the Internet (measured by Internet hosts) were more unevenly distributed relative to older technologies, such as fixed line telephony. Findings also indicated lower inequality with respect to mobile telephony, suggesting greater potential for technological "leapfrogging" in bridging the digital divide. Overall, however, the diffusion of ICT remained extremely uneven throughout the world. Coping with these challenges will require concerted national efforts, as well as support from the international community, including the United Nations system, non-governmental organizations (NGOs), research institutions and academia.

11. The experience of different developing countries in the building-up of ICT capacity was evaluated in order to identify and distinguish between successful and unsuccessful policies. The Commission also attempted to understand the reasons for success or failure and to make conclusions from these experiences, which could be recommended for application elsewhere.

12. Although the cost of using ICT is still high for most developing countries, the cost of not doing so is likely to be even higher. Developing countries are at very different stages in the task of building distinctive "knowledge societies" to support their development objectives. The application of ICT as tools for development offer opportunities to reduce some existing disparities in income distribution and the quality of life.

13. ICT may reshape, fundamentally restructure and reorganize working methods, and may ultimately lead to the restructuring of the sectors in which they are used. Networking effects and partnerships in research and collaborative networks among all stakeholders, whereby ICT can change research and education methods by enabling group interactions to share knowledge, were of particular interest. The evidence suggests that we still stand at the threshold of what ICT may achieve, and that these collaborative networking methods will develop further as people learn to communicate, interact and work in new ways.

14. An enhanced partnership, involving the public and the private sector as well as academia was needed to tackle some of the issues involved in ICT use and diffusion, the barriers and obstacles, as well as policy measures that could facilitate and enhance ICT use. Different actors, including Governments, the private and public sectors, academia and NGOs in industrialized countries should cooperate with their

counterparts in developing countries and countries with economies in transition with a view to facilitating their access to ICT and encouraging the use, production and development of those technologies. Relevant entities of the United Nations system with activities in ICT should provide assistance to developing countries in the design and implementation of national ICT strategies and action plans.

15. The synthesis report[1] on technology development and capacity-building for competitiveness in a digital society, which summarized the work of the Commission during the intersessional period 2001-2003, noted that while ICT had created new opportunities, they had also generated new challenges for countries in which technological capability, skill capacity and infrastructure were not sufficiently developed, and that technology could only be successfully acquired when supported by policies for human resource development and for the transfer and diffusion of technology. Partnership between the public and private sectors, as well as between national Governments and relevant bodies within the United Nations system should also be enhanced. The Commission made a series of recommendations addressed to national Governments, the Commission and the United Nations with a view to assisting developing countries in accessing and integrating new technologies, particularly ICT.

16. Probably the most prevalent, and in some ways most efficient, vehicle for technology transfers was foreign direct investment. When supported by an appropriate policy framework, foreign direct investment could increase the host country's technological level through the foreign affiliates' higher level of technological capacity and performance as well as their linkages with domestic firms and consequent spillover benefits. Further opportunities could arise for learning more advanced production techniques and management skills and for improved access to the global market.

17. There was general consensus at the ensuing discussion that ICT offered wide-ranging opportunities, but that they had also exacerbated the divide between the developed and developing countries. Cooperation between and among countries was needed to bridge the digital divide. The importance of bilateral cooperation was illustrated in Chile's experience, where potential technology sources were identified and targeted for partnership. It was suggested that an inventory be drawn up of initiatives and programmes designed to facilitate the access of developing countries to ICT, while the report's recommendation for the systematic compilation of technology and ICT-related data was endorsed. Furthermore, as a special measure for countries with inadequate statistical databases, assistance could be provided in assessing the extent of its digital gap and in formulating a custom-made technology/ICT strategy.

18. Several delegations expressed the view that bridging the digital divide was but one step towards meeting the development agenda. As such, efforts should be made to harmonize the national science and technology policy as well as related legal and institutional frameworks with national development goals. The synthesis report on the work of the Commission could be the basis for a national road map for such a strategy.

19. Such a strategy should address the issue of national capacity-building for the absorption and learning of the new technologies. Several delegations pointed out

[1] E/CN.16/2003/2.

that the lack of capacity to absorb and make use of available information was one of the main causes of the digital divide and that measures to improve both human resources development as well as computer literacy should therefore be taken. In order to bring the benefits of ICT to all segments of the population while safeguarding indigenous cultural and linguistic identities, a language-neutral interface such as an icon-based system might be promoted. ICT services were a potential export item, which developing countries could make use of through improved computer literacy and skills.

20. Other important elements in a successful national science and technology policy were the involvement of all stakeholders and support for private sector growth. It was also pointed out that ICT was one of several building blocks in economic and social development, which included the principles of sustainability and good governance, as well as human development and public health. ICT applications in such areas as commerce, health, education and governance have become important in many countries. In the area of health, for example, ICTs were vital in providing information to the public and in containing the outbreak of major diseases, such as Severe and Acute Respiratory Syndrome (SARS). It was also pointed out that since governance underpinned all national development efforts, the promotion of e-government should be given priority in the drive towards a computer-based future.

21. At the global level, there was a need to address problems arising from the use and abuses of ICT. One such problem was the vulnerability it engendered in terms of security risks. Another source of vulnerability stems from the dominance wielded by technology innovators over technology users, both at the country and firm levels. The rapid pace of technology development and, consequently, the rate at which technology became obsolete, was also a concern for developing countries for which investment in new technologies were a major undertaking.

22. Members of the Commission encouraged partnership with ICT-related bodies, and suggested that steps be taken to make the Commission a member of the United Nations ICT Task Force. The Commission should also use the World Summit on the Information Society as a forum to instil the concepts of sustainable development, good governance, public goods and social responsibility into the global drive towards a knowledge-based society. The synergy between the Commission and UNCTAD should also be strengthened; for example UNCTAD's work with the World Trade Organization (WTO) on technology transfer could benefit from the Commission's work on ITC, and vice-versa.

## Action taken by the Commission

### Science and technology for development

23. At its 9th meeting, on 9 May, the Commission had before it a draft resolution entitled "Science and technology for development", which was submitted by the Chairman in an informal paper.

24. The Commission was informed that draft resolution contained no programme budget implications.

25. At the same meeting, statements were made by the representatives of Austria, Morocco, Brazil, the Philippines, Romania, India and Turkey.

26. The representative of the Economic and Social Commission for Western Asia also made a statement.

27. Also at the 9th meeting, the Commission recommended the text of the draft resolution, as amended during the discussion, for adoption by the Economic and Social Council (see chap. I, sect. A).

**Report considered by the Commission on Science and Technology for Development under agenda item 2**

28. At its 9th meeting, on 9 May, on the proposal of the Chairman, the Commission decided to take note of the report of the Secretary-General under agenda item 2 (see chap. I, sect. C, decision 6/101).

# Chapter III

## Comprehensive note on implementation of and progress made on decisions taken at the fifth session of the Commission

1. At its 3rd and 4th meetings, on 6 May 2003, the Commission held a general discussion on agenda item 3. It had before it a note by the Secretariat on the implementation of and progress made on decisions taken at the fifth session of the Commission (E/CN.16/2003/3).

2. At its 3rd meeting, on 6 May 2003, the Chief of the Science and Technology Section of UNCTAD made an introductory statement.

3. At the same meeting, statements were made by the representatives of Brazil, the Russian Federation, the Sudan, Ghana, India, the Philippines, Turkey, Morocco and Cameroon, as well as by the observers for Angola and Cuba.

4. The Chief of the Science and Technology Section of UNCTAD responded to questions raised during the discussion.

5. At the 4th meeting, on 6 May, statements were made by the representatives of Turkey, China, Romania, Brazil, Cameroon and Spain as well as by the observer for Uganda.

6. The Chief of the Science and Technology Section of UNCTAD responded to questions raised during the discussion.

### Chairperson's summary of the general discussion

7. In line with the Commission's request at its fifth session for the continued follow-up of its earlier work on capacity-building in biotechnology, the secretariat used the Science and Technology for Development Network (STDev)[1] as a tool to disseminate information materials prepared for and resulting from the panel sessions on biotechnology, including country case studies and examples of legal and regulatory framework covering biotechnology. The Commission also published *Key Issues in Biotechnology* in 2002 (UNCTAD/ITE/TEB/10). Aimed at policy makers, the document reviewed several key issues in modern gene technology and its present applications in crop agriculture and medicine, as well as their potential benefits and challenges. Another work aimed at policy makers was a report, which was being finalized, entitled, *The Biotechnology Promise: capacity-building for participation of developing countries in the bioeconomy*. Through country case studies, the publication illustrated biotechnology-related opportunities and challenges for developing countries in agriculture and environment, as well as in the food and pharmaceuticals industries. It also provided examples of both public and private initiatives and an analysis of how and why some were more successful than others. The secretariat also prepared a report on the impact of biotechnology on agriculture, health, economic productivity and sustainability, including related issues such as technology transfer, capacity-building and intellectual property rights within the

[1] http://rO.unctad.org/stdev.

context of the needs and conditions of developing countries. It will be submitted as a report of the Secretary-General to the General Assembly at its fifty-eighth session.

8. Regarding the Commission's earlier work on partnerships and networking, the Commission also released another publication, *Partnerships and Networking in Science and Technology for Development* (UNCTAD/ITE/TEB/11), which analysed trends in global partnering and strategic alliances as well as inventories opportunities for developing countries.

9. The Science and Technology Diplomacy Initiative had been launched in collaboration with the Science, Technology and Innovation Program of Harvard University's Kennedy School of Government. By sensitizing developing country diplomats and representatives on issues related to science and technology, the Initiative sought to assist them in their participation, dialogue and negotiation at international forums, where science and technology-related issues were to be discussed.

10. The findings of the Commission's earlier work on ICT had been brought to the attention of key players engaged in bridging the digital divide, including the United Nations ICT Task Force, and had been used as input into its present substantive work. They had also been presented in a meeting of the Group of Fifteen experts on the issue. Additionally, three more publications have been released: *Coalition of Resources for Information and Communication Technologies* (UNCTAD/ITE/TEB/13); *Changing Dynamics of Global Computer Software and Services Industry: Implications for developing countries* (UNCTAD/ITE/TEB/12); and *Electronic Commerce and Music Business Development in Jamaica: A portal to the new economy*? (UNCTAD/ITE/TEB/8).

11. Regarding coordination in the field of science and technology, the Commission, through its Bureau and its secretariat, had taken steps to strengthen contacts with United Nations and other international organizations and institutions, including: increased representation at international forums such as the South-South High-Level Conference on Science and Technology; the World Summit on the Information Society; and the International Conference on Science, Technology and Innovation: and its involvement in emerging international policy issues. Briefings were also provided to UNCTAD's Commission on Investment, Technology and Related Financial Issues as well as to the Economic and Social Council at its 2002 session. Additionally, Internet hyperlinks were exchanged with other organizations within the system, such as the Department of Economic and Social Affairs, the United Nations ICT Task Force and the Asian and Pacific Centre for the Transfer of Technology of the Economic and Social Commission for Asia and the Pacific, and a partnership agreement established with the World Bank's Development Gateway.

12. The importance of biotechnology and the potentials it offered was unanimously endorsed at the ensuing discussion. Biotechnology, which was an area of great interest to many developing countries because of its potentials, was also, owing to the concerns and misunderstanding surrounding it, subject to debate. The Commission's continued follow-up on this issue would be beneficial. One of its recent publications, which dealt with biotechnology capacity-building at the national level, was an excellent way of making the Commission's work useful to developing countries.

13. Strong interest and appreciation were expressed regarding the Science and Technology Diplomacy Initiative. Its objectives and modes of training, which consisted of policy dialogues on various scientific and technological fields, were discussed.

14. It was pointed out that the issue of coordination was the most critical for the Commission at this time. Coordination was important not only for making the Commission and its work more effective, but also for facilitating communication among bodies within the United Nations system. An established channel for communication and coordination, for example, had been instrumental in combating and containing the recent virus outbreak in Asia.

15. The STDev, in addition to being a gateway to information on science and technology, could be a vital tool for coordination, both among the Commission's members and also among the United Nations bodies. One delegation suggested that the information in STDev should be classified under different headings, for example ICT, biotechnology, nanotechnology, coordination and synergy. It could also showcase the Commission, its work and its dealings with bodies both without and outside the United Nations system.

16. The WTO Working Group on Trade and Transfer of Technology was of interest to the Commission. The secretariat explained that there was no explicit link between the Commission and the WTO Working Group, but that UNCTAD had an observer status in the group and had been contributing to its work. It was suggested that the Chairperson of the Commission might address the WTO Working Group at its next meeting to express the Commission's interest in its work.

17. Initial statements were made on the new working modalities, brought about principally by the decision of the Economic and Social Council to annualize the Commission's regular sessions. Another new element was the working group on strengthening the Commission's role. The Group had been established with no budgetary support.

# Chapter IV

## Presentation of country reports on information and communication technologies

1. The Commission considered agenda item 4 at its 5th, 6th and 7th meetings, on 7 and 8 May 2003.

2. At its 5th meeting, on 7 May, the Commission heard presentations by the representatives of the Sudan, Morocco, Ghana, Romania, Algeria, China, Slovakia and India.

3. At its 6th meeting, on 7 May, the Commission heard presentations by the representatives of Ethiopia, the Islamic Republic of Iran, the Russian Federation and Lesotho.

4. At its 7th meeting, on 8 May, the Commission heard presentations by the representatives of Chile, Cameroon and Brazil.

5. At the same meeting, statements were made by the representatives of Jamaica, the Philippines, Belarus, India, Morocco and Chile and the observer for Senegal.

6. The representative of the International Atomic Energy Agency (IAEA) also made a statement.

7. Also at the 7th meeting, the observer for the International Confederation of Free Trade Unions, an NGO in consultative status with the Economic and Social Council, made a statement.

### Chairperson's summary of the general discussion

8. Reports on national policies and strategies on ICT were presented by a number of delegates. The reports described recent developments in connectivity, access, as well as applications of ICT in such areas as e-commerce, e-education, e-health and e-government. Many countries had set up national strategies or action plans for the development and use of ICT, while others are still in the process of establishing ones. The international community was called on to assist the latter group of countries in setting up and in implementing national strategies to develop ICT and extend their diffusion. There was a wide variety of policy approaches aimed at developing ICT capabilities. To a large extent, differences in strategies reflected the varying levels of technology development. Most delegates stressed the need to strengthen human resources development through education, training and computer literacy. Given the low level of funding for research and development in most developing countries, delegates also stressed the need for partnerships and networking between all stakeholders, including the private and public sectors, industry, research institutions, universities and civil society.

# Chapter V
# Budget of the Commission

1. The Commission considered agenda item 5 at its 7th meeting on 8 May 2003. It had before it a note by the Secretariat on the budget and intersessional activities of the Commission (E/CN.16/2003/4).

2. At its 7th meeting, the Commission heard an introductory statement by the representative of the Division on Investment Technology and Development of UNCTAD.

3. At the same meeting, statements were made by the representatives of Jamaica, Germany, the Russian Federation, Ghana, Brazil, Cameroon and Austria.

## Chairperson's summary of the general discussion

4. A note on the biennial budget, which dealt with both regular and extrabudgetary resources, was presented by the secretariat.

5. During the discussion that followed, Commission members expressed the need to raise extrabudgetary resources for the newly created Trust for Science and Technology within UNCTAD to allow the Commission to undertake its work and carry out its function appropriately.

# Chapter VI

## Functioning of the Commission on Science and Technology for Development, including its role in coordinating science and technology for development

1. The Commission considered agenda item 6 at its 8th and 9th meetings, on 8 and 9 May 2003. It had before it a note by the secretariat on the functioning of the Commission on Science and Technology for Development, including its role in coordinating science and technology for development (E/CN.16/2003/5).

2. At its 8th meeting, on 8 May, the Commission held a general discussion on the item and heard an introductory statement by the Chief of the Science and Technology Section of UNCTAD.

3. Statements were made by the representatives of Jamaica, Ghana and the Philippines.

4. The observer for the Arab Authority for Agricultural Investment and Development, an intergovernmental organization that had been invited to participate in the sixth session of the Commission, also made a statement.

5. The Chief of the Science and Technology Section of UNCTAD responded to questions raised during the discussion.

### Chairperson's summary of the general discussion

6. General Assembly resolution 54/201 of 22 December 1999 set in motion the move to strengthen the Commission on Science and Technology for Development. This was predicated on the recognition that the degree of access to and adaptation of science and technology determine, to a large degree, the pace of development. The cross-cutting nature of science and technology within the United Nations system called for coherent policy guidance and closer coordination. The Economic and Social Council subsequently adopted a series of measures designed to provide further support to the Commission in carrying out its roles and its mandates.

7. The measures included the annualization of the Commission's regular session, beginning with the sixth session. In order to offset the budgetary implication of such measure, the Commission's Bureau had earlier discussed the options of (a) foregoing the Commission's current entitlement for a two-week session on a biennial basis in favour of a one-week session on an annual basis; or (b) reducing the number of intersessional panels/working groups from four to one.

8. Another measure was the setting up of an Open-ended Working Group to analyse ways and means of improving the role and participation of the Commission in the recommendation and policy-making process of the United Nations system on science and technology issues.

9. The secretariat also reported on its collaboration with United Nations system entities in the area of science and technology. This was carried out through the STDev web site, participation in work panels, input into work programmes and wide dissemination of its information materials. Among the United Nations entities with which the Commission through its Bureau and secretariat had worked with were the

Department of Economic and Social Affairs of the Secretariat, the United Nations ICT Task Force, the Commission on Sustainable Development, the Inter-Agency Network for Safety in Biotechnology, the United Nations Millennium Development Goals Task Force on Science, Technology and Innovation, the Asian and Pacific Centre for the Transfer of Technology, the Economic Commission for Europe, the Economic and Social Commission for Western Asia, the Economic and Social Commission for Asia and the Pacific, the International Telecommunication Union (ITU), the United Nations Industrial Development Organization (UNIDO), IAEA and UNCTAD.

10. The Commission's work on ICT had been presented at the preparatory committees of the World Summit on the Information Society (July 2002 and February 2003, Geneva); the International Conference on Science, Technology and Innovation (September 2002, Cambridge, Mass.); the Group of 77 South-South High-Level Conference on Science and Technology (October 2002, Dubai) and the World Telecommunication/ICT Indicators Meeting (January 2003, Geneva).

11. At the ensuing discussion, the view was expressed that coordinating science and technology-related activities of the various United Nations specialized agencies would be a real challenge. The Commission should, at this time, aim not so much for coordination but for the integration of activities and findings. It could integrate and add value to the ongoing work of the different agencies. A Commission member cited the International Council of Scientific Unions as a possible source of information for the work of the Commission.

12. It was also suggested that the Vienna Programme of Action on Science and Technology for Development, as endorsed by General Assembly resolution 34/218 of December 1979, be reviewed, and that items that were still of interest and relevance be adapted to the realities of globalization. While enhancing cooperation with other organizations to coordinate recent progress and minimize duplication, the Commission should also work towards the improvement of living conditions, the alleviation of poverty, and the control of diseases, as stipulated in the Millennium Development Goals.

## Action taken by the Commission

### Report of the Open-ended Working Group of the Commission

13. At its 9th meeting, on 9 May, the Commission considered the report of the Open-ended Working Group of the Commission, which was contained in an informal paper introduced by the Chairman of the Working Group, Mr. Pedro Sebastião Teta (Angola).

14. At the same meeting, on the proposal of the Chairman, the Commission took note of the report of the Open-ended Working Group and decided to include it in the final report of the Commission (for the text of the decision, see chap. I, sect. C, decision 6/102).

15. The report of the Open-ended Working Group is as follows:

## Report of the Open-ended Working Group on the Commission on Science and Technology for Development on the implementation of Economic and Social Council resolution 37/2002

With the entire United Nations system now focusing efforts and resources on achieving the Millennium Development Goals, it is advisable for the Commission to continue and intensify its activities targeting delivery of tangible and measurable outcomes towards these same goals.

Adopting the Millennium Development Goals as source of overall guidance for its work would help the Commission gain greater focus and visibility, and should also secure effective interaction and cooperation with other United Nations organizations, the specialized agencies and recent national, regional and global technology-based initiatives.

In formulating Millennium Development Goals-related substantive themes and activities, the Commission should confine itself to niches where it is able to perform measurable and complementary roles. Additionally, its substantive themes and activities should provide an effective basis for tapping resources now being allocated in preparation for international summits, with emphasis on the World Summit on the Information Society and forthcoming rounds of trade negotiations.

Following their adoption by the Economic and Social Council and the General Assembly, the substantive themes of the Commission should serve as guidance for science and technology activities undertaken by the entire United Nations system, with the aim of attaining specific Millennium Development Goals. Naturally, here, as elsewhere, more assertive assistance from the Economic and Social Council would be essential in attaining synergy and complementarity within the United Nations system. Nowhere is such support more needed than in ensuring wider cooperation and enhanced resources for research and development on crucial issues for the developing countries, including health, food, water and social development.

In addition to exploring ways and means of harnessing science and technology to achieve selected Millennium Development Goals, the Commission would need to identify mechanisms that enable enhanced impact of science and technology in achieving tangible outcomes relating to the goals in selected areas of focus.

New modes of interaction and coordination should be adopted with greater reliance on information and communication technologies (ICT). Teleconferencing could improve dissemination and exchange of information and expertise between concerned United Nations organizations, with emphasis on the role of the United Nations regional commissions, national governments, manufacturers and non-governmental organizations. ICT could also promote public/private sector partnerships on the transfer and commercialization of technologies. The Commission and the United Nations ICT Task Force could join forces with private firms to attract sponsorships, in particular from transnational corporations concerned with promoting ICT.

The Commission's efforts in enhancing tangible science and technology contributions towards the achievement of the Millennium Development Goals, would need to:

- Promote activities of the United Nations and the national, public and private sectors, aimed at the formulation of science, technology and innovation policies, relevant implementation strategies, as well as legislative and regulatory frameworks to allow effective adoption and implementation of new knowledge in the field of science and technology;
- Address modalities that allow measurement and evaluation of progress made in capacity-building and training in science and technology in relation to socio-economic development, with emphasis on national human resources development and inculcating abilities within the developing countries to engage in global negotiations relating to science and technology issues, including the Science and Technology Diplomacy initiative;
- Champion the creation of science and technology observatories and disseminate other good practices, including diplomacy training;
- Perform regional and international networking activities in the field of science and technology, emphasizing research and development cooperation on issues critical for sustainable development, including research on water and food security problems and developing country diseases, epidemics and health emergencies;
- Mainstream science and technology into all development initiatives, activities and discussions held within the United Nations system, improve the exchange of information among agencies, organizations and intergovernmental bodies concerned with science and technology, with focus on promoting joint programming and common action, synthesis of results achieved, and issues that remain to be tackled, as well as the timely notification of the Commission's members on all relevant outcomes;
- Assume the role of catalyst in promoting science- and technology-based partnerships and collaboration in the achievement of the Millennium Development Goals.

Addressing the above tasks may not be feasible given the levels of resources allocated to the work of the Commission. Further extrabudgetary support would also be needed in the immediate future. Additional support would also be needed from member Governments. This support could take the form of more effective cooperation in providing up-to-date information on national initiatives as well as more intensive information sharing on experience in the assessment and implementation of new technologies. Expertise should also be more widely shared on issues of policy and strategy formulation and dissemination of best practices.

The Commission should engage all stakeholders in discussions and interactions, through the STDev, on the report of the Open-ended Working Group, with a view to generating feedback and further suggestions. Progress achieved in adopting more effective modalities will be reviewed during the next session of the Commission.

# Chapter VII

## Election of the Chairperson and other officers for the seventh session of the Commission

1. The Commission considered agenda item 7 at its 10th meeting, on 9 May 2003, wherein it elected the following officers by acclamation for its seventh session:

*Chairman*: Mr. Arnoldo Ventura (Jamaica)

*Vice-Chairmen*: Mrs. Galina Butovskaya (Belarus)
Mr. Vijaya Kumar (Sri Lanka)
Mr. Jesús Martínez Frias (Spain)
Mr. Zacharie Perevet (Cameroon)

2. At the same meeting, the Chairman-elect made a statement.

# Chapter VIII

## Provisional agenda and organization of work of the seventh session of the Commission

1. The Commission considered agenda item 8 at its 8th meeting, on 8 May 2003. It had before it an informal note by the secretariat containing the draft provisional agenda and documentation for the seventh session of the Commission.

2. At the same meeting, following statements by the representatives of Cameroon, the Russian Federation, Austria, Ethiopia and Morocco, as well as by the Chief of the Science and Technology Section of UNCTAD, the Commission approved the draft provisional agenda for its seventh session, as contained in the informal paper, and recommended it to the Economic and Social Council for adoption (see chap. I, sect. B, draft decision III).

# Chapter IX
## Other matters

1. The Commission considered agenda item 9 at its 4th, 8th and 9th meetings, on 6, 8 and 9 May 2003.

2. At the 4th meeting, on 6 May 2003, the Secretary-General of the United Nations Conference on Trade and Development addressed the Commission.

3. At the same meeting, the Co-Chairperson of the Gender Advisory Board of the Commission made a statement.

4. Also at the 4th meeting, statements were made by the representatives of Brazil and India.

5. At its 8th meeting, on 8 May, the Commission participated in a videolink dialogue with the Chairman of the Millennium Development Goals Task Force on Science, Technology and Innovation at the Kennedy School of Government at Harvard University.

### Chairperson's summary of the general discussion

6. The Secretary-General of UNCTAD, Mr. Rubens Ricupero, pointed out that the worldwide consensus that knowledge was the key to development had put science and technology at the centre of the development debate. This Commission had been created in order to galvanize intergovernmental attention and action in this regard. The Commission's work on national capacity-building in biotechnology was an illustration of its usefulness and effectiveness.

7. More productive synergies could be derived from the respective works of the Commission and UNCTAD. For its forthcoming conference, UNCTAD had singled out national capacity-building within the context of socio-economic sustainable development. This has been based on the notion that the capacity to innovate determined the success or failure of a country's economic drive, in terms of trade and development, and its capacity to diversify and improve its export base. The Commission could make an enormous contribution in this area, as well as in our work on intellectual property and the transfer of technology.

8. The Secretary-General of the United Nations Conference on Trade and Development said that there was room in the market for all categories and levels of players, with each operating at their respective comparative advantage. Citing the textile and clothing industry as an example, he pointed out entry level opportunities that had been successfully capitalized by certain Asian and African countries on the one hand, and the high-end niche occupied by European fashion houses. Innovation in the textile industry also came in the form of new fabrics. The innovation factor in this industry, as manifested in style and material, was the underlying basis for its dynamism.

9. Many countries needed assistance in building national capacities to innovate. The Commission was a viable instrument for putting science and technology and the capacity to innovate at the heart and centre of development efforts.

10. During the ensuing discussion, it was suggested that since the work programmes of UNCTAD and the Commission were so complementary, the relationship between the two entities should be termed "symbiotic" rather than synergistic. Indeed, developing countries should and must also benefit from new technologies, and the forthcoming UNCTAD XI would provide an excellent occasion for the two bodies to cooperate and coordinate their efforts towards this common end. The annualization of the Commission sessions would enable it to respond to rapidly changing technology pace and issues in a relevant and timely manner and would make its work available to more forums and bodies.

11. The videoconference between the Commission and Professor Calestous Juma,[1] Coordinator of the Millennium Development Goal Task Force on Science, Technology and Innovation, centred around the issue of how developing countries could best benefit from technological development, in particular from new and emerging technologies. In this context, the Millennium Development Goal Task Force had identified five priority areas: policy framework and enabling environment; human resources capabilities; entrepreneurship; research and development; and capacities to recognize opportunities and anticipate trends. Professor Juma stressed the vital role that the Commission could play in the promotion of science and technology to meet the Millennium Development Goals.

12. It was noted that economic development was generally a result of technological transformation that was sustained and supported by coherent and effective institutional adjustments. Developing countries should be included as active participants at the very beginning of a technological revolution, instead of trying to cope with it at a later stage, as with the case of ICT.

13. It was noted that some developing countries have not been able to utilize the available resources effectively; there is a need to assimilate science and technology elements in all the work of governmental processes and operations. Another important player was academia. The Commission had dealt with the role of universities in 1992, including its own function in disseminating knowledge and the importance of partnerships between universities of industrialized and developing countries. Building linkages between and among basic research, applied research and industrial spin-offs should be a priority. The importance of education was illustrated by the case of China, which had invested heavily in science and technology education. The country's ability to absorb technology was a consequence of 30 to 40 years of investment in such education.

14. The important role of civil society and the democratization of science was also brought up at the discussion. It was noted that few non-governmental organizations (NGOs) had an impartial, balanced approach to science and technology. They tended to be of two extremes: the corporate organizations emphasizing only the positive aspects and the others only the negative. The Commission on Science and Technology for Development might encourage the creation of new NGOs that could provide a balanced view of the issues.

15. Ms. Shirley Malcom, Co-Chair of the Gender Advisory Board, outlined the activities of the Board. Established by the Commission in 1995 with a view to monitoring the gender-related issues of science and technology, the Board had

[1] Calestous Juma is Professor of the Practice of International Development and Director of the Science, Technology and Innovation Program at Harvard University's Kennedy School of Government.

maintained close contact and collaboration with the Commission. It routinely reports to the Commission, and conversely, the Commission is represented at the Board's meetings.

16. The Board had thus far been funded by the Netherlands through its Ministry of Foreign Affairs, the latest grant being for the two-year period from January 2003 to December 2004. As of May 2003, 10 national gender science and technology committees had been established or were in the process of being established: two in the Americas, five in Africa, two in Asia and one in a European country with an economy in transition. In addition, there were national focal points in 13 countries, most of whom were based in government ministries. The Board had also continued its work with United Nations bodies, specifically with the United Nations Development Fund for Women (UNIFEM) and the United Nations Educational, Scientific and Cultural Organization (UNESCO). The Board was collaborating with partners to ensure a gender component at the upcoming World Conference of Engineering Federations in Shanghai in 2004, and was also working closely with the Third World Organization of Women in Science, the Once and Future Action Network and Women in Global Science and Technology.

17. At the Board's most recent meeting, it was decided that interaction and collaboration between the Commission and the Gender Advisory Board should be improved. The Board should participate in the Commission's panel, as well as exchange of information and findings.

18. During the ensuing discussion, one delegation said that there were an increasing number of women entering broader range of professional fields, although it seemed that professional advancement was still limited. There was agreement that there should be closer collaboration between the Commission and the Gender Advisory Board.

## Action taken by the Commission

### Contribution of the Commission on Science and Technology for Development to the high-level segment of the Economic and Social Council on rural development

19. At its 9th meeting, on 9 May, the Commission had before it a draft decision entitled "Contribution of the Commission on Science and Technology for Development to the high-level segment of the Economic and Social Council on rural development", which was submitted by the Chairman in an informal paper.

20. At the same meeting, the Commission recommended the text of the draft decision for adoption by the Economic and Social Council (see chap. I, sect. B, draft decision I).

### Joint Bureau meeting of the Commission on Science and Technology for Development and the Economic and Social Council

21. At its 9th meeting, on 9 May, on the proposal of the Chairman, the Commission agreed to annex to its final report a summary of a joint meeting held on 7 May between the Bureaus of the Commission and the Economic and Social Council (see annex III).

# Chapter X

## Adoption of the report of the Commission on its sixth session

1. At the 10th meeting, on 9 May 2003, the Vice-Chairman of the Commission with rapporteurial responsibilities, Mr. Jesús Martínez Frias (Spain), introduced and orally revised the draft report of the Commission on its sixth session (E/CN.16/2003/L.2).

2. At the same meeting, the Commission adopted the draft report on its sixth session, as orally revised, and entrusted the Rapporteur with its completion.

# Chapter XI
# Organization of the session

## A. Opening and duration of the session

1. The Commission on Science and Technology for Development held its sixth session at the United Nations Office at Geneva from 5 to 9 May 2003. The Commission held 10 meetings (1st to 10th).

2. The session was opened by the Chairman, Vijaya Kumar (Sri Lanka), who also made an opening statement.

3. At the 1st meeting, on 5 May, the Deputy Secretary-General of the United Nations Conference on Trade and Development addressed the Commission.

4. At the same meeting, statements were made by the following keynote speakers who had been invited to address the Commission: Mr. José Maria Figueres, Chairman of the United Nations ICT Task Force; Professor Montasser Ouaili, Secretary of State in Charge of Informatics and the Internet, Tunisia; and Mr. Marc Furrer, Secretary of State and Director of the Swiss Federal Office for Communications.

## B. Attendance

5. The session was attended by representatives of 27 States members of the Commission. Observers for other States Members of the United Nations and for non-member States, representatives of organizations of the United Nations system and observers for intergovernmental, non-governmental and other organizations also attended. A list of participants is contained in annex I.

6. At its 1st meeting, on 5 May, following a statement by the Chairman, the Commission invited the Arab Authority for Agricultural Investment and Development to participate in the work of its sixth session.

## C. Election of officers

7. At the 6th meeting of its fifth session, on 31 May 2001, the Commission had elected the following members of the Bureau of its sixth session by acclamation:

*Chairperson*:
Mr. Vijaya Kumar (Sri Lanka)

*Vice-Chairmen*:
Mr. Pedro Sebastião Teta (Angola)
Mr. Sergio von Horoch (Paraguay)
Mr. Stefan Moravek (Slovakia)
Mr. Jesús Martínez-Frías (Spain)

8. At its 1st meeting, on 5 May 2003, the Commission elected by acclamation Mr. Joseph Cobbinah (Ghana) and Mr. Jorge Luis von Horoch (Paraguay) as Vice-Chairmen of its sixth session to replace Mr. Pedro Sebastião Teta (Angola) and Mr. Sergio von Horoch (Paraguay), who had resigned their posts.

9. At its 3rd meeting, on 6 May, the Commission designated Mr. Jesús Martínez-Frías (Spain) Vice-Chairman with rapporteurial responsibilities.

## D. Agenda and organization of work

10. At its 1st meeting, on 5 May, the Commission adopted its provisional agenda, as contained in document E/CN.16/2003/1, and approved its organization of work, as contained in document E/CN.16/2003/L.1. The agenda read as follows:

1. Adoption of the agenda and other organizational matters.
2. Substantive theme: "Technology development and capacity-building for competitiveness in a digital society", with particular attention to information and communication technologies (ICT) as pervasive technologies of global impact, wide application and growing potential. The theme will include: technology transfer, diffusion and capacity-building in ICT for the purpose of enhancing competitiveness of developing countries and countries with economies in transition.
3. Comprehensive note on implementation of and progress made on decisions taken at the fifth session of the Commission.
4. Presentation of country reports on ICT.
5. Budget of the Commission.
6. The functioning of the Commission on Science and Technology for Development, including its role in coordinating science and technology for development.
7. Election of the Chairperson and other officers for the seventh session of the Commission.
8. Provisional agenda and organization of work for the seventh session of the Commission.
9. Other matters.
10. Adoption of the report of the Commission on its sixth session.

11. At its 1st meeting, on 5 May, the Commission agreed that the Chairman would submit a summary of the general discussion under each agenda item for inclusion in its final report.

## E. Documentation

12. The documents before the Commission at its sixth session are listed in annex II.

## Action taken by the Commission

### Duration of future sessions of the Commission on Science and Technology for Development

13. At its 9th meeting, on 9 May, the Commission had before it a draft decision entitled "Duration of future sessions of the Commission on Science and Technology for Development", which was submitted by the Chairman in an informal paper.

14. At the same meeting, the Secretary made a statement regarding cost-savings estimates related to the draft decision.

15. Also at the 9th meeting, the Commission recommended the text of the draft decision for adoption by the Economic and Social Council (see chap. I, sect. B, draft decision II).

16. After the adoption of the draft decision, the representative of Austria made a statement.

# Annex I

## Attendance

### Members*

| | |
|---|---|
| Algeria | Messaoud Boumaour, Abdelhakim Benekaa, Ali Drouiche, Fateh Kouri |
| Austria | Bernd Michael Rode, Peter Storer |
| Belarus | Galina Butovskaya, Dmitry Zorin |
| Belgium | Guy Rayee |
| Bolivia | Angélica Navarro |
| Brazil | Luis Felipe De Seixas Correa, Marilia Sardenberg, José Marcos Nogueira Viana |
| Cameroon | Zacharie Perevet, Jacqueline Nicole Mono Ndjana, Efa Fouda |
| Chile | Jorge Guzman, Manuel Barrera |
| China | Han Li |
| Ethiopia | Mulugeta Amha |
| Germany | Andreas Stamm |
| Ghana | David Gyewu, Joseph R. Cobbinah, Matilda Aku Alomatu |
| India | Indira Nath, Preeti Saran |
| Iran (Islamic Republic of) | Hojatollah Haj Hosseini, Mehdi Fakheri |
| Jamaica | Arnoldo Ventura, Symone Betton |
| Lesotho | Maseqobela Williams |
| Morocco | Yahya Boubdellaoui, Youns Tijani |
| Paraguay | Jorge Luis von Horoch, Lorena Patiño |
| Philippines | Angelina Sta. Catalina, Visitación V. Asiddao |
| Romania | Rolandá Predescu, Florian Ciolacu |
| Russian Federation | Oleg Roudenskiy |
| Sierra Leone | Thomas Yormah |
| Slovakia | Stefan Moravek, Milan Herman, Pavol Hrmo, Milan Majék |
| Spain | Jesús Martinez Frias, Julio Guzman Rodriguez |
| Sri Lanka | Vijaya Kumar, Silva Dayaratna |
| Sudan | El Tayeb Idris Eisa |
| Turkey | S. Sumru Inal |

* Bangladesh, Grenada and Jordan were not represented at the session.

## States Members of the United Nations represented by observers

Angola, Colombia, Croatia, Cuba, Democratic Republic of the Congo, Egypt, Eritrea, Finland, France, Gabon, Greece, Hungary, Indonesia, Latvia, Libyan Arab Jamahiriya, Madagascar, Mauritania, Mexico, Nicaragua, Oman, Pakistan, Panama, Peru, Portugal, Senegal, Slovenia, Switzerland, Thailand, Trinidad and Tobago, Tunisia, Uganda, United Kingdom of Great Britain and Northern Ireland, Yemen and Zimbabwe

## United Nations

Economic Commission for Western Asia, United Nations Conference on Trade and Development

## Specialized agencies and related organizations

International Atomic Energy Agency, United Nations Educational, Scientific and Cultural Organization, United Nations Industrial Development Organization

## Intergovernmental organizations represented by observers

Organization of the Islamic Conference

## Non-governmental organizations

### General consultative status

International Confederation of Free Trade Unions

World Confederation of Labour

### Special consultative status

Christian Democratic International

World Association of Former United Nations Interns and Fellows

## Organization having received an invitation to participate in the work of the sixth session of the Commission

Arab Authority for Agricultural Investment and Development

# Annex II

## List of documents before the Commission at its sixth session

| *Document symbol* | *Agenda item* | *Title or description* |
|---|---|---|
| E/CN.16/2003/1 | 1 | Provisional agenda and annotations |
| E/CN.16/2003/2 | 2 | Report by the Secretary-General: synthesis report on the Commission panels on technology development and capacity-building in a digital society |
| E/CN.16/2003/3 | 3 | Note by the secretariat on implementation of and progress made on decisions taken at the fifth session of the Commission |
| E/CN.16/2003/4 | 5 | Note by the secretariat on the budget of the Commission |
| E/CN.16/2003/5 | 6 | Note by the secretariat on the functioning of the Commission on Science and Technology for Development, including its role in coordinating science and technology for development |
| E/CN.16/2003/L.1 | 1 | Note by the secretariat on the organization of the work of the session |
| E/CN.16/2003/L.2 | 10 | Draft report of the Commission on its sixth session |

# Annex III

## Summary of the joint Bureau meeting between the Bureau of the Commission on Science and Technology for Development and the Bureau of the Economic and Social Council

The starting point of the discussion was the need to strengthen the coordination between the Council and its functional commissions, with a view to contributing to the implementation of major United Nations conferences and, in particular, to the work programme aimed at achieving the Millennium Development Goals.

Reporting on its activities, the Bureau of the Commission spoke of: the Science and Technology for Development web site (STDev) as a gateway to information on science and technology activities within the United Nations system; the Science and Technology Diplomacy Initiative; and the upcoming publication of the information and communication technologies (ICT) development indices. The Bureau of the Commission also reported on the Commission's collaborations with the United Nations ICT Task Force, the Preparatory Committee of the World Summit on the Information Society, the United Nations Millennium Development Goals Task Force and the Gender Advisory Board. It stressed the role of the Commission as a think-tank on science and technology issues within the United Nations system. The work of the Commission had also been widely disseminated to national Governments and to academia.

The Bureau of the Council expressed its full support to the Commission and appreciation for its work. It said that the work of the Commission on biotechnology was very valuable to the work of the Council, and that its work on ICT would be a significant contribution both to the ICT Task Force and to the preparatory process of World Summit on the Information Society. It commended the Commission on its outstanding work on the ICT development indices. The indices was one of the most comprehensive in this areas thus far, and could be particularly useful to developing countries. The Commission's work on biotechnology was identified as one of the key contributions of the Commission to the high-level segment of the Economic and Social Council on rural development.

The Bureau of the Council noted with satisfaction the collaboration between the Commission and its Gender Advisory Board, and the inclusion of gender perspectives into its work programme. It also considered the contents of STDev comprehensive and relevant. The Bureau of the Council recognized the need to ensure coherence in the work programmes of the Council and its functional commissions, and stressed the need to enhance a two-way communication system. Preparations were being made for a meeting of the chairpersons of the functional commissions and a systematic examination of the reports of the commission in the months prior to the substantive session of the Council. The Bureau of the Council said that the Council's theme for the following year's session was to be decided in time to enable the functional commissions to make contributions.

The Bureau of the Council suggested collaboration between the Commission of Science and Technology for Development and the Commission on the Status of Women, which had undertaken work on the theme of gender and ICT. It also suggested that the work programme of the Commission be made flexible in order to address issues that may emerge during the intersessional period.

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